

**CARRIER AIR CONDITIONING  
SUPERFUND SITE**

**FIVE-YEAR REVIEW**  
AUGUST 28, 2000



**U.S. Environmental Protection Agency  
Region IV**

## **CARRIER AIR CONDITIONING FIVE-YEAR REVIEW SIGNATURE COVER**

### **SITE NAME, LOCATION, AND EPA ID**

Carrier Air Conditioning  
97 Byhalia Road  
Collierville, Tennessee 38017

TND04406222

### **SITE STATUS**

Carrier Air Conditioning was finalized on the National Priorities List in 1990. The remedy is complete. The Site was a PRP-lead RI/FS and is a PRP-lead RD/RA. The Site has continued operating a manufacturing facility during the Superfund investigation and cleanup. Some development has occurred adjacent to the Carrier Site; however, the physical conditions on the Site - and most importantly in the impacted areas - remain the same.

### **REVIEW STATUS**

The Five-Year Review conducted at the Carrier Site is required by policy. Treatment is ongoing, and hazardous substances are still present on Site at concentrations above protective levels for unrestricted exposure and unlimited use. When the remedial action is complete, the remedy will achieve unlimited use and unrestricted exposure, but the remedial action will need more than five years to complete. The Preliminary Close Out Report, October 31, 1995 is considered the “trigger” for this five-year review. The next Five-Year Review will be required in 2005, five years from the completion date (i.e., signature date) of this Five-Year Review Report.

### **RECOMMENDATIONS AND REQUIRED ACTIONS**

Routine maintenance will be conducted to continue optimum performance of the soil vapor extraction systems and the groundwater pump and treat system. Soil borings in the source areas, the Main Plant Area and the North Remediation System, will be collected and evaluated to determine if shutdown of the soil vapor extraction systems is viable.

### **PROTECTIVENESS STATEMENT**

The remedy implemented at the Main Plant Area, North Remediation System, and Water Plant #2 at the Carrier Site are protective of human health and the environment. Results of the Five-Year Review indicate that:

- Mass removal at the two soil vapor extraction treatment areas is ongoing, and significant mass reduction has occurred since the systems were installed. Approximately 14,100 pounds of TCE have been removed from soils and shallow groundwater.
- Groundwater extraction rates are being maintained at levels sufficient to contain the TCE plume. The Collierville wells have maintained production at 1 MGD with little downtime. Approximately 3,719 pounds of TCE have been removed from the Memphis Sands since the system was installed.

Conditions at the Site are not expected to change in the near future, given the area's land use (industrial/commercial) and zoning controls currently in place. Access controls and surface conditions (e.g., pavement in the Main Plant Area) are adequate to prevent exposure.

August 28, 2000

Date

Signed by Richard D. Green

Richard D. Green  
Waste Management Division Director

## Table of Contents

Acronyms.....	iv
1.0 INTRODUCTION.....	1
2.0 SITE BACKGROUND.....	4
2.1 Physical Characteristics.....	4
2.2 Land and Resource Use.....	6
2.3 History of Contamination.....	8
2.4 Site Chronology.....	12
3.0 RISK EVALUATION.....	19
3.1 Baseline Risk Assessment.....	19
3.2 Review of Baseline Risk Assessment for Collierville, Tennessee.....	20
3.3 Assessment and Conclusions.....	24
4.0 REMEDIAL ACTIONS.....	26
4.1 Institutional Controls.....	26
4.2 North Remediation System (NRS).....	26
4.2.1 Original Design Specifications.....	26
4.2.2 Remedial Action Objectives.....	28
4.2.3 Current Operating Parameters.....	28
4.2.4 O&M Evaluation.....	29
4.2.5 NRS Site Inspection.....	29
4.2.6 Permit Compliance.....	31
4.2.7 Performance to Date.....	31
4.2.8 NRS Conclusions.....	32
4.3 Main Plant Area (MPA).....	35
4.3.1 Original Design Specifications.....	35
4.3.2 Remedial Action Objectives.....	38
4.3.3 Current Operating Parameters.....	38
4.3.4 O&M Evaluation.....	39
4.3.5 MPA Site Inspection.....	40
4.3.6 Permit Compliance.....	43
4.3.7 Performance to Date.....	43
4.3.8 MW-31 Concentrations.....	45
4.4 Groundwater Treatment System (Water Plant #2).....	49
4.4.1 Original Design Specifications.....	49
4.4.2 Remedial Action Objectives.....	50
4.4.3 Current Operating Parameters.....	51
4.4.4 O&M Evaluation.....	51
4.4.5 Water Plant #2 Site Inspection.....	52
4.4.6 Permit Compliance.....	53
4.4.7 Performance to Date.....	53
4.4.8 Water Plant #2 Performance/Conclusions.....	56
4.5 Groundwater Containment.....	56
4.5.1 Containment Objectives.....	56

4.5.2	Water Plant #2 Production Rates.....	60
4.5.3	Groundwater Monitoring Program/Effectiveness Monitoring.....	66
4.5.4	Water Plant #2 Performance/Conclusions.....	68
5.0	INTERVIEWS/DOCUMENTS REVIEW/ARAR REVIEW.....	69
5.1	Interviews.....	69
5.1.1	Town of Collierville's Utilities Directors.....	69
5.1.2	Town of Collierville's Planning and Development Department.....	70
5.1.3	USEPA Region IV RPM.....	71
5.1.4	TDEC Division of Superfund Project Manager.....	71
5.1.5	Carrier's Collierville Plant Manager.....	74
5.2	Document Review.....	75
5.3	ARAR Review.....	79
6.0	ASSESSMENT	82
6.1	Conditions External to the Remedy.....	82
6.2	Remedy Implementation and System Operations.....	83
7.0	DEFICIENCIES AND RECOMMENDATIONS.....	87
7.1	North Remediation System.....	87
7.2	Main Plant Area.....	87
7.3	Water Plant #2.....	88
7.4	Recommendations for the CAC Site.....	89
7.5	Next Review.....	89
8.0	PROTECTIVENESS STATEMENT.....	90

#### **List of Figures**

Figure 2-1	Site Location Map.....	5
Figure 2-2	Site Map.....	7
Figure 4-1	NRS Mass Removal per Quarter Since 1995.....	33
Figure 4-2	NRS Cumulative Mass Removal Since 1995.....	34
Figure 4-3	MPA Mass Removal per Quarter Since 1995.....	46
Figure 4-4	MPA Cumulative Mass Removal Since 1995.....	47
Figure 4-5	TCE Concentration Trends in MW-31.....	48
Figure 4-6	Raw Water Concentrations at Water Plant #2.....	54
Figure 4-7	Water Plant #2 Mass Removal per Quarter.....	57
Figure 4-8	Water Plant #2 Cumulative Mass Removal.....	58
Figure 4-9	Water Plant #2 Pumpage — 1997.....	61
Figure 4-10	Water Plant #2 Pumpage — 1998.....	62
Figure 4-11	Water Plant #2 Pumpage — 1999.....	63
Figure 4-12	Water Plant #2 Pumpage — 2000.....	64
Figure 5-1	Zoning Map.....	72

#### **List of Tables**

Table 2-1	Chronology of Events.....	13
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Table 3-1	BRA Summary of Risk for Adult Workers from Oral and Dermal Exposure to Contamination in Soil.....	21
Table 3-2	BRA Summary of Risks for Potential, Future Child Residents from Oral and Dermal Exposure to Contaminants in Soil.....	22
Table 4-1	TCE Mass Removal at NRS.....	31
Table 4-2	NPA System Operating Parameters.....	39
Table 4-3	MPA Downtime Record.....	40
Table 4-4	MPA Mass Removal.....	44
Table 4-5	MW-31 Concentrations.....	45
Table 4-6	Design Parameters for Water Plant #2 Air Strippers.....	49
Table 4-7	Groundwater Cleanup Levels.....	51
Table 4-8	Water Plant #2 Mass Removal Data.....	55
Table 4-9	Monthly Production Data for 1997.....	60
Table 4-10	Monthly Production Data for 1998.....	65
Table 4-11	Monthly Production Data for 1999.....	65
Table 4-12	Monthly Production Data for 2000.....	66
Table 4-13	Flow Rate Records, August 1997 through May 2000.....	66
Table 7-1	Recommendations and Required Actions.....	89

#### **List of Appendices**

Appendix A	Abandoned Well Information
Appendix B	Review of Human Health Baseline Risk Assessment
Appendix C	Town of Collierville Water Treatment Plant #2 Monthly Operation Reports

## Acronyms

µg/kg	Micrograms per kilogram
µg/L	Micrograms per liter
AF	Adherence factor
bgs	Below ground surface
BRA	Baseline Risk Assessment
CDI	Chronic daily intake
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cfm	Cubic feet per minute
CFR	Code of Federal Regulations
DCE	Dichloroethene
ED	Exposure duration
FS	Feasibility study
gpm	Gallons per minute
HI	Hazard index
hp	Horsepower
ID	Inner diameter
ILCR	Incremental lifetime cancer risk
lbs/day	pounds per day
MCL	Maximum Contaminant Level
MGD	Million gallons per day
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
MPA	Main Plant Area
NCP	National Contingency Plan
NRS	North Remediation System
O&M	Operations and maintenance
PCE	Tetrachloroethene
PVC	Polyvinyl chloride
RA	Remedial action
RAO	Remedial action objective
RBC	Risk-based criteria
RD	Remedial design
RfD	Reference dose

RI	Remedial investigation
ROD	Record of Decision
RPM	Remedial Project Manager
SA	Surface area
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SVE	Soil vapor extraction
TCE	Trichloroethene
TDEC	Tennessee Department of Environment and Conservation
TDOT	Tennessee Department of Transportation
UCL	Upper confidence level
USEPA	U.S. Environmental Protection Agency